

Cropland Interpretations

Crop Yield

The average yields per acre of principal crops under a high level of management are presented in published soil surveys. In any given year, yields may be higher or lower than those indicated in these tables because of variations in rainfall and other climatic factors. The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, or green manure crops; and harvesting that insures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. Absence of a yield indicates that the soil is not suited to the crop or the crop is generally not grown on the soil.

Productivity Index

The productivity index rating system provides an index for ranking all the soil mapping units in Missouri based upon their suitability to produce crops. An individual productivity index rating for a soil map unit reflects the integrated effects of numerous factors that influence the yield potential.

Many users consider the comparative yields between soils to be of more value than the actual yields because the index relationships are likely to remain constant over a period of years.

This subsection includes:

- **(a) Land Capability and Yields per Acre of Crop and Pasture**
- **(b) Productivity of Missouri Soil (located in the county office)**

Johnson County, Missouri
Table B2.--Land Capability and Yields per Acre of Crops and Pasture

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(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Map symbol and soil name	Land capability	Corn	Grain sorghum	Grass-legume hay	Soybeans	Tall fescue	Winter wheat
		Bu	Bu	Tons	Bu	AUM	Bu
BaB: Barco-----	2e	72.00	61.00	3.30	26.00	6.60	30.00
BaC: Barco-----	4e	66.00	55.00	3.00	24.00	6.20	27.00
Bk: Blackoar-----	3w	100.00	88.00	4.40	37.00	9.00	42.00
BoC2: Bolivar-----	4e	48.00	39.00	2.50	16.00	5.00	20.00
BoD2: Bolivar-----	6e	---	---	2.00	---	4.00	---
Br: Bremer-----	2w	96.00	83.00	4.30	36.00	8.60	40.00
DpB: Deepwater-----	2e	102.00	88.00	4.50	38.00	9.00	42.00
DpC2: Deepwater-----	3e	90.00	77.00	4.00	34.00	8.00	37.00
Dt: Dockery-----	2w	85.00	73.00	3.70	31.00	7.40	35.00
Fs: Freeburg-----	2w	92.00	77.00	4.00	35.00	8.00	38.00
GoC2: Gorin-----	4e	55.00	45.00	2.60	20.00	5.00	23.00
Hg: Haig-----	2w	96.00	83.00	4.20	40.00	8.60	40.00
Hp: Haplaquents---	---	---	---	---	---	---	---
Urban Land----	8s	---	---	---	---	---	---
HtA: Hartwell-----	2w	86.00	72.00	3.70	32.00	7.40	35.00
HtB2: Hartwell-----	2e	70.00	65.00	3.50	25.00	7.00	30.00

Table B2.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Grain sorghum	Grass-legume hay	Soybeans	Tall fescue	Winter wheat
		Bu	Bu	Tons	Bu	AUM	Bu
HxC: Higginsville--	3e	103.00	88.00	4.50	38.00	9.00	42.00
Ka: Kanima-----	7s	---	---	0.80	---	1.60	---
Lg: Lightning Silt Loam-----	3w	72.00	61.00	3.30	26.00	6.60	30.00
MaB: Macksburg-----	2e	110.00	96.00	4.80	44.00	9.60	46.00
MdB: Mandeville----	2e	67.00	55.00	3.00	25.00	6.00	27.00
MdC: Mandeville----	4e	60.00	50.00	2.70	21.00	5.40	25.00
Nd: Nodaway-----	2w	96.00	83.00	4.30	36.00	8.60	40.00
NoD: Norris-----	6e	---	---	1.30	---	2.60	---
NoF: Norris-----	7e	---	---	0.80	---	1.60	---
Pd: Pits-----	8s	---	---	---	---	---	---
PoB: Polo-----	2e	96.00	83.00	4.30	36.00	8.00	40.00
PoC2: Polo-----	3e	84.00	72.00	3.70	30.00	7.40	35.00
SaB: Sampsel-----	2e	89.00	77.00	4.00	33.00	8.00	37.00
SaC: Sampsel-----	3e	82.00	70.00	3.70	30.00	7.40	33.00
SaC3: Sampsel-----	3e	72.00	61.00	3.40	24.00	6.90	30.00
ShB: Sharpsburg----	2e	101.00	88.00	4.50	43.00	9.00	42.00
SnD2: Snead-----	6e	---	---	2.30	---	4.20	---

Table B2.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Grain sorghum	Grass-legume hay	Soybeans	Tall fescue	Winter wheat
		Bu	Bu	Tons	Bu	AUM	Bu
SoD: Snead-----	6e	---	---	1.50	---	3.00	---
Rock Outcrop--	8s	---	---	---	---	---	---
SoF: Snead-----	6e	---	---	0.90	---	1.80	---
Rock Outcrop--	8s	---	---	---	---	---	---
W: Water-----	---	---	---	---	---	---	---
Wa: Wabash-----	3w	62.00	50.00	2.70	21.00	5.40	25.00
WdB: Weller-----	3e	82.00	70.00	3.70	30.00	7.40	35.00
WfB: Winfield-----	2e	98.00	85.00	4.30	38.00	8.60	40.00
WfC: Winfield-----	3e	92.00	77.00	4.10	36.00	8.00	40.00
WfC3: Winfield-----	3e	74.00	68.00	3.40	28.00	7.20	32.00
Zk: Zook-----	2w	82.00	72.00	3.50	36.00	6.60	32.00

PASTURE AND HAYLAND GROUPS
Johnson County, Missouri: Detailed Soil Map Legend

Map Symbol and Map Unit Name	Component name	Pasture and Hayland group
BaB-BARCO LOAM, 2 TO 5 PERCENT SLOPES-----	BARCO	MDU
BaC-BARCO LOAM, 5 TO 9 PERCENT SLOPES-----	BARCO	MDU
Bk-BLACKOAR SILT LOAM, OCCASIONALLY FLOODED-----	BLACKOAR	WLB
BoC2-BOLIVAR LOAM, 5 TO 9 PERCENT SLOPES, ERODED-----	BOLIVAR	MDU
BoD2-BOLIVAR FINE SANDY LOAM, 9 TO 14 PERCENT SLOPES, ERODED-----	BOLIVAR	MDU
Br-BREMER SILTY CLAY LOAM, RARELY FLOODED-----	BREMER	WCB
DpB-DEEPWATER SILT LOAM, 2 TO 5 PERCENT SLOPES-----	DEEPWATER	LyU
DpC2-DEEPWATER SILT LOAM, 5 TO 9 PERCENT SLOPES, ERODED-----	DEEPWATER	LyU
Dt-DOCKERY SILTY CLAY LOAM, FREQUENTLY FLOODED-----	DOCKERY	WLO
Fs-FREEBURG SILT LOAM, RARELY FLOODED-----	FREEBURG	WLO
GoC2-GORIN SILT LOAM, 5 TO 9 PERCENT SLOPES, ERODED-----	GORIN	
Hg-HAIG SILT LOAM-----	HAIG	WCU
Hp-HAPLAQUENTS-URBAN LAND COMPLEX-----	HAPLAQUENTS URBAN LAND	
HtA-HARTWELL SILT LOAM, 0 TO 2 PERCENT SLOPES-----	HARTWELL	CyU
HtB2-HARTWELL SILT LOAM, 2 TO 5 PERCENT SLOPES, ERODED-----	HARTWELL	CyU
HxC-HIGGINSVILLE SILT LOAM, 4 TO 7 PERCENT SLOPES-----	HIGGINSVILLE	LyU
Ka-KANIMA SHALY SILTY CLAY LOAM, 30 TO 60 PERCENT SLOPES-----	KANIMA	GrU
Lg-LIGHTNING SILT LOAM, OCCASIONALLY FLOODED-----	LIGHTNING SILT LOAM	WCB
MaB-MACKSBURG SILT LOAM, 1 TO 4 PERCENT SLOPES-----	MACKSBURG	CyU
MdB-MANDEVILLE SILT LOAM, 2 TO 5 PERCENT SLOPES-----	MANDEVILLE	MDU
MdC-MANDEVILLE SILT LOAM, 5 TO 9 PERCENT SLOPES-----	MANDEVILLE	MDU
Ng-NODAWAY SILT LOAM, OCCASIONALLY FLOODED-----	NODAWAY	WLO
NoD-NORRIS SHALY SILT LOAM, 5 TO 14 PERCENT SLOPES-----	NORRIS	ShU
NoF-NORRIS SHALY SILT LOAM, 14 TO 35 PERCENT SLOPES-----	NORRIS	ShU
Pd-PITS, QUARRIES-----	PITS	
PoB-POLO SILT LOAM, 2 TO 5 PERCENT SLOPES-----	POLO	CyU
PoC2-POLO SILT LOAM, 5 TO 9 PERCENT SLOPES, ERODED-----	POLO	CyU
SaB-SAMPSEL SILTY CLAY LOAM, 2 TO 5 PERCENT SLOPES-----	SAMPSEL	WCU
SaC-SAMPSEL SILTY CLAY LOAM, 5 TO 9 PERCENT SLOPES-----	SAMPSEL	WCU
SaC3-SAMPSEL SILTY CLAY LOAM, 5 TO 9 PERCENT SLOPES, SEVERELY ERODED-----	SAMPSEL	WCU
ShB-SHARPSBURG SILT LOAM, 2 TO 5 PERCENT SLOPES-----	SHARPSBURG	CyU
SnD2-SNEAD SILTY CLAY LOAM, 7 TO 16 PERCENT SLOPES, ERODED-----	SNEAD	MDU
SoD-SNEAD-ROCK OUTCROP COMPLEX, 5 TO 14 PERCENT SLOPES-----	SNEAD ROCK OUTCROP	MDU
SoF-SNEAD-ROCK OUTCROP COMPLEX, 14 TO 35 PERCENT SLOPES-----	SNEAD ROCK OUTCROP	MDU
W-WATER-----	WATER	
Wa-WABASH SILTY CLAY, FREQUENTLY FLOODED-----	WABASH	WCB
WdB-WELLER SILT LOAM, 2 TO 5 PERCENT SLOPES-----	WELLER	CyU
WfB-WINFIELD SILT LOAM, 2 TO 5 PERCENT SLOPES-----	WINFIELD	LyU
WfC-WINFIELD SILT LOAM, 5 TO 9 PERCENT SLOPES-----	WINFIELD	LyU
WfC3-WINFIELD SILTY CLAY LOAM, 5 TO 9 PERCENT SLOPES, SEVERELY ERODED-----	WINFIELD	LyU
Zk-ZOOK SILTY CLAY LOAM, FREQUENTLY FLOODED-----	ZOOK	WCB